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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/006,777	01/14/1998	CHRIS L. HOOGENBOOM	100-010	4131

35114 7590 01/31/2003

ALCATEL INTERNETWORKING SYSTEM, INC.  
ALCATEL-INTELLECTUAL PROPERTY DEPARTMENT  
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EXAMINER

KWOH, JASPER C

ART UNIT PAPER NUMBER

2663

DATE MAILED: 01/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRC

<b>Office Action Summary</b>	<b>Application No.</b> 09/006,777	<b>Applicant(s)</b> HOOGENBOOM ET AL.	
	<b>Examiner</b> Jasper Kwoh	<b>Art Unit</b> 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-16 and 18-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-16,18-22,33-54 is/are rejected.
- 7) ☒ Claim(s) 23-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/6/02 has been entered.

### ***Claim Objections***

2. Claims 1, 10, 23, 33, and 43 objected to because of the following informalities: the output data stores are associated with only one output port; therefore, "ports" should be changed to "port" on line 10 of claim 1, line 10 of claim 10, line 12 of claim 23, line 9 of claim 33 and line 9 of claim 42. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 33-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 33 recites the limitation "the output data stores" in line 10. There is insufficient antecedent basis for this limitation in the claim.

6. Claims 38 and 39 recite the limitation "the data buffers" in line 1 and 1 respectively. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 42 recites the limitation "the output data stores" in line 10. There is insufficient antecedent basis for this limitation in the claim.

8. Claims 49 and 50 recite the limitation "the data buffers" in line 1 and 1 respectively. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-3, 5, 7-14, 16, 18-20, 22, 33-35, 37-46, 48-52 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukano et al.

Regarding claims 1, 10, 33 and 42, Fukano et al. disclose a plurality of input ports (i.e. fig. 1, 11n has n ports); plurality of output ports (i.e. fig. 1, 17n has n ports); a switch fabric (i.e. fig. 1, 13); wherein the output data stores on an output side of the switch fabric are arranged to buffer data units for delivery to their associates output ports (i.e. fig. 16, output buffers), and the output ports are arranged to segregate the data units for storage in the output data stores based on their designated priorities (i.e. fig. 1, col. 6, ll. 47-54, ABR and CRB are different priorities) and to monitor the backlog of buffered data units in one or more of said plurality of output data stores for delivery to their associated output ports (i.e. fig. 1, RNR signal controls the packet transmissions to prevent congestion) and, if the backlog buffered in one or more selected stores reaches a particular level, to enforce a rate limitation against additional data units for delivery to

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their associated output ports, wherein the additional data units in violation of the rate limitation are filtered (i.e. col. 7, ll. 38-43, if there is congestion, cells are filtered so only certain priority cells are transmitted).

Regarding claims 2-3, 5, 7-9, 11-14, 16, 18-20, 22, 34-35, 37-41, 43-46, 48-52 and 54, Fukano et al. discloses buffers having distinct priorities and input combinations (i.e. fig. 1, col. 6, ll. 47-54, ABR queue and CBR queue from different inputs), high priority not violate rate limitation but low priority does (i.e. col. 7, ll. 38-43, if there is congestion, cells are filtered so only certain priority cells are transmitted), once not backlogged, lifts rate limitation (inherent or else once the input stops transmitting it will never transmit again and the system is useless), data buffers are with the input ports (i.e. fig. 1, 11n), data buffers with output ports (i.e. fig. 1, 16n), rate limitation enforced at inputs (i.e. fig. 1, first, fifth RNR signals enforce at input) and rate limitations enforced at outputs (i.e. fig. 1, second RNR signal enforces at output).

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 4, 15, 21, 36, 47 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukano et al. in view of Hluchyj et al.

13. Fukano et al. does not specifically disclose using "leaky bucket" algorithm. Hluchyj et al. teaches using leaky bucket algorithm as a way to perform congestion control in an ATM network (i.e. fig. 4, 404, feedback information is received and used to determine how to treat the cells using leaky bucket algorithm). Therefore, it would have

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been obvious for an ordinary person skilled in the art at the time of the invention to include using this particular algorithm, with the system of Fukano et al. in order to have at least one way to manage cells in the buffers.

***Response to Arguments***

14. Applicant's arguments with respect to claims 1-5, 7-16, 18-22, and 33-54 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Shimojo is cited to show a packet transfer device with plurality of output ports and backpressure signal adapted to a large number of input ports;
- b. Fan et al is cited to show a large, capacity, ATM switch; and
- c. Grenot et al. is cited to show device to regulate the flow of ATM cells within an ATM packet switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasper Kwoh whose telephone number is (703) 305-0101. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703)308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

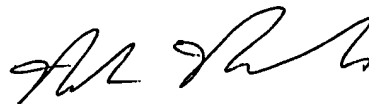
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.



JK  
January 24, 2003

Jasper Kwoh  
Examiner  
Art Unit 2663



MELVIN MARCELO  
PRIMARY EXAMINER